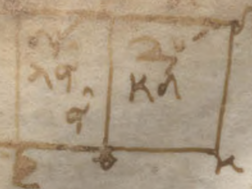
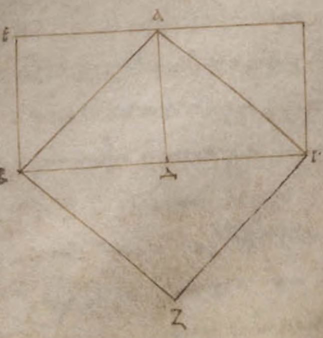


ὑπὸ ΒΑΓ· καὶ ἤχθω κάθετος ἡ ΑΔ· λέγω ὅτι τὸ μὲν ὑπὸ τῶν ΓΒΔ ἴσον ἐστὶ τῷ ἀπὸ τῆς ΒΑ· τὸ δὲ ὑπὸ τῶν ΒΓΔ ἴσον τῷ ἀπὸ ΓΑ· καὶ τὸ ὑπὸ τῶν ΒΔ ΔΓ ἴσον τῷ ἀπὸ τῆς ΔΑ· καὶ ἔτι τὸ ὑπὸ τῶν ΒΓ ΑΔ ἴσον τῷ ὑπὸ τῶν ΒΑ ΑΓ· καὶ πρῶτον ὅτι τὸ ὑπὸ τῶν ΓΒΔ ἴσον τῷ ἀπὸ τῆς ΒΑ· ἐπεὶ γὰρ ἐν ὀρθογωνίῳ τριγώνῳ ἀπὸ τῆς ὀρθῆς γωνίας ἐπὶ τὴν βάσιν κάθετος ἦκται ἡ ΑΔ· τὰ ΑΒΔ ΑΔΓ ἄρα τρίγωνα ὅμοιά ἐστιν τῷ τε ὅλῳ τῷ ΑΒΓ καὶ ἀλλήλοις· καὶ ἐπεὶ ὅμοιόν ἐστι τὸ ΑΒΓ τρίγωνον τῷ ΑΒΔ τριγώνῳ· ἔστιν ἄρα ὡς ἡ ΓΒ πρὸς τὴν ΒΑ· οὕτως ἡ ΒΑ πρὸς τὴν ΒΔ· τὸ ἄρα ὑπὸ τῶν ΓΒΔ ἴσον ἐστὶ τῷ ἀπὸ τῆς ΑΒ· διὰ τὰ αὐτὰ δὴ καὶ τὸ ὑπὸ τῶν ΒΓΔ ἴσον ἐστὶ τῷ ἀπὸ τῆς ΑΓ· καὶ ἐπεὶ ἐὰν ἐν ὀρθογωνίῳ ἀπὸ τῆς ὀρθῆς γωνίας ἐπὶ τὴν βάσιν κάθετος ἀχθῇ· ἡ ἀχθεῖσα τῶν τῆς βάσεως τμημάτων μέση ἀνάλογόν ἐστιν· ἔστιν ἄρα ὡς ἡ ΒΔ πρὸς τὴν ΔΑ· οὕτως ἡ ΑΔ πρὸς τὴν ΔΓ· τὸ ἄρα ὑπὸ τῶν ΒΔ ΔΓ ἴσον ἐστὶ τῷ ἀπὸ τῆς ΔΑ· λέγω ὅτι καὶ τὸ ὑπὸ τῶν ΒΓ ΑΔ ἴσον ἐστὶ τῷ ὑπὸ τῶν ΒΑ ΑΓ· ἐπεὶ γὰρ ὡς ἔφαμεν ὅμοιόν ἐστι τὸ ΑΒΓ τῷ ΑΒΔ· ἔστιν ἄρα ὡς ἡ ΒΓ πρὸς τὴν ΓΑ· οὕτως ἡ ΒΑ πρὸς τὴν ΑΔ· ἐὰν δὲ τέσσαρες εὐθεῖαι ἀνάλογον ὦσιν· τὸ ὑπὸ τῶν ἄκρων ἴσον ἐστὶ τῷ ὑπὸ τῶν μέσων· τὸ ἄρα ὑπὸ τῶν ΒΓ ΑΔ ἴσον ἐστὶ τῷ ὑπὸ ΒΑ ΑΓ· λέγω ὅτι ἐὰν ἀναγραφῇ ἀπὸ τῆς ΒΓ ὀρθογώνιον παραλληλόγραμμον καὶ συμπληρωσομένου τὸ ΔΖ· ἴσον ἐστὶ τὸ ΕΓ τῷ ΔΖ· ἑκάτερον γὰρ αὐτῶν διπλάσιόν ἐστι τοῦ ΑΒΓ τριγώνου· καί ἐστι τὸ μὲν ΕΓ τὸ ὑπὸ τῶν ΒΓ ΑΔ· τὸ δὲ ΔΖ τὸ ὑπὸ τῶν ΒΑ ΑΓ· τὸ ἄρα ὑπὸ τῶν ΒΓ ΑΔ ἴσον ἐστὶ τῷ ὑπὸ τῶν ΒΑ ΑΓ:-



λγ΄

Εὑρεῖν δύο εὐθείας δυνάμει ἀσυμμέτρους ποιούσας τό τε συγκείμενον ἐκ τῶν ἀπ' αὐτῶν τετραγώνων ῥητόν· τὸ δ' ὑπ' αὐτῶν μέσον· ἐκκείσθωσαν δύο ῥηταὶ δυνάμει μόνον σύμμετροι αἱ ΑΒ ΒΓ· ὥστε τὴν μείζονα τὴν ΑΒ τῆς ἐλάσσονος μεῖζον δύνασθαι τῷ ἀπὸ ἀσυμμέτρου ἑαυτῇ· καὶ τετμήσθω ἡ ΒΓ δίχα κατὰ τὸ Δ· καὶ τῷ ἀφ' ὁποτέρας τῶν ΒΔ ΔΓ ἴσον παρὰ τὴν ΑΒ παραβεβλήσθω παραλληλόγραμμον ἐλλεῖπον εἴδει τετραγώνῳ· καὶ ἔστω τὸ ὑπὸ τῶν ΑΕΒ· καὶ γεγράφθω ἐπὶ τῆς ΑΒ ἡμικύκλιον τὸ ΑΖΒ· καὶ ἤχθω τῇ ΑΒ πρὸς ὀρθὰς ἡ ΕΖ· καὶ ἐπεζεύχθωσαν αἱ ΑΖ ΖΒ· καὶ ἐπεὶ δύο εὐθεῖαι ἄνισοί εἰσιν αἱ ΑΒ ΒΓ· καὶ ἡ ΑΒ τῆς ΒΓ μεῖζον δύναται τῷ ἀπὸ ἀσυμμέτρου ἑαυτῇ· τῷ δὲ τετάρτῳ τοῦ ἀπὸ τῆς ΒΓ τουτέστι τῷ ἀπὸ τῆς ἡμισείας αὐτῆς παρὰ τὴν ΑΒ παραβέβληται ἐλλεῖπον εἴδει τετραγώνῳ καὶ ποιεῖ τὸ ὑπὸ τῶν ΑΕΒ· ἀσύμμετρος ἄρα ἐστὶν ἡ ΑΕ τῇ ΕΒ· καὶ ἔστιν ὡς ἡ ΑΕ πρὸς ΕΒ· οὕτως τὸ ὑπὸ τῶν ΒΑ ΑΕ πρὸς τὸ ὑπὸ τῶν ΑΒ ΒΕ· ἴσον δὲ τὸ μὲν ὑπὸ τῶν ΒΑ ΑΕ τῷ ἀπὸ τῆς ΑΖ· τὸ δὲ ὑπὸ τῶν ΑΒ ΒΕ τῷ ἀπὸ τῆς ΖΒ· ἀσύμμετρον ἄρα ἐστὶ τὸ ἀπὸ τῆς ΑΖ τῷ ἀπὸ τῆς ΖΒ· αἱ ΑΖ ΖΒ ἄρα δυνάμει εἰσὶν ἀσύμμετροι· καὶ ἐπεὶ ἡ ΑΒ ῥητή ἐστι.

BODLEIANA